

### **REMARKS**

Reconsideration of the present application is respectfully requested. Independent claims 1, 9, 13, 18 and 25 have also been amended, along with dependent claims 4, 5, 7, 8, 11, 15, 16, 21, 23, 24 and 28. Claims 1 - 28 are currently pending.

#### **Rejections based on 35 U.S.C. § 102**

Claims 1 – 28 stand rejected under 35 U.S.C. §102(e) as being anticipated by Horn, *et al.*, U.S. Publn. No. 2004/0177319 (“Horn”). In maintaining the present rejections, the most recent Advisory Action relies on two statements. First, the Action states, “[A] collection of Horn equates to said universal data store limitation” of the present claims. Secondly, the Action states that “the term Object Store, collections, and containers of Horn are interchangeable.” To address these statements, Applicants have amended independent claims 1, 9, 13, 18 and 25. In light of these amendments, Applicants respectfully submit that Horn’s collections do not equate to the “universal data storage device” now recited by the independent claims. Applicants further respectfully submit that the terms Object Store, collections, and containers, as used by Horn, are not interchangeable. Therefore, reconsideration of the rejections and allowance is earnestly solicited in view of the amendments and the following remarks.

A. **The Collections of Horn Do Not Equate to the “Universal Data Storage Device” Now Recited by the Independent Claims**

To teach the claimed deletion of items from a universal data store, the Advisory Action relies on Horn’s teachings regarding removing objects from a “collection.” Each of the independent claims, claims 1, 9, 13, 18 and 25, has been amended in response to this rejection and now recite a “universal data storage device.” Because removal of an object from Horn’s collections does not remove that object from a data storage device, Applicants respectfully submit that Horn does not teach “deleting at least one of said plurality of items from said

universal data storage device in response to said change [in a relationship],” as required by independent claims 9 and 25. Horn also does not teach similar limitations required by amended independent claims 1, 13 and 18.

Horn teaches a computer system that includes software for managing data objects “including dynamic and automatic organization, linking, finding, cross-referencing, viewing and retrieval of multiple objects regardless of nature or source.” Horn, Abstract. The system includes a special object-oriented database called an “Object Store.” Horn, Para. 29. Using link metadata, objects in the Object Store may be logically organized into collections and other containers.

Importantly, when an object is added to or removed from a collection, the system “modifies the metadata links to indicate collection and container membership, and does not move or copy the original object at all.” Horn, para. 124 (emphasis added). So, when an object is removed from a collection, the link data is modified to reflect the change, while the object, as physically present in the Object Store, is left undisturbed.

The passages from Horn cited in the final Office Action and in the Advisory Action confirm that Horn does not teach deleting an item from a data storage device in response to a change in a relationship. Rather, the cited matter teaches modifying the link metadata defining a collection. For example, paragraphs 226 – 231 describe changes in link metadata occurring in response to changes in an environment. See Horn, paras. 204, 213 and 226 (defining changes to a metadata property named pContainers in response to an environmental change). Paragraphs 178 – 179 address ensuring consistency of data between different systems but do not provide any circumstances for deleting items. Most significantly, paragraphs 165 – 167 make it explicitly clear that the system of Horn does not physically delete an object in

response to changes in relationships or when the target item is not related to a source item. Paragraph 167 states, “items may be removed from a collection by choosing the Remove command, which removes the items from the collection but **does not otherwise delete the item from the source (e.g. the file system) or any other collections.**” (emphasis added). The Horn reference is clear-- when an item is removed from a collection, it is not deleted from a data storage device.

Therefore, Applicants respectfully submit that Horn’s collections do not equate to the claimed “universal data storage device.” Accordingly, Horn does not teach “deleting at least one of said plurality of items from said universal data storage device in response to said change [in a relationship],” as required by amended independent claims 9 and 25. Horn also does not teach similar limitations required by amended independent claims 1, 13 and 18, and Applicants respectfully submit that the independent claims, as well as their dependent claims, are in condition for allowance.

**B. The Terms Object Store, Collections, and Containers are Not Interchangeable.**

The Advisory Action also states that “the term Object Store, collections, and containers of Horn are interchangeable.” On this basis, the Advisory Action concludes that Horn’s teachings regarding removing objects from a collection also teach removing objects from the Object Store. Horn, however, explicitly ascribes different meanings to terms “collection” and “Object Store.” Considering these unique meanings, along with the context provided by the Horn reference, the terms “collection” and “Object Store” may not be used interchangeably.

As defined by Horn, the term “Object Store” means “a special database that stores and retrieves object data by unique identifier (UID).” Horn, para. 29. Horn’s Metadata Filing System “MFS” creates a representation of an object and stores the representation in the Object

Store. Horn, para. 46. Like traditional databases, the Object Store “is capable of saving and restoring the complete state of any object, thus providing a persistent repository of the user’s information.” Horn, para. 191. Therefore, the Object Stores is a platform for storing data objects and retrieving such objects when necessary.

In contrast, the term “collection” is defined by Horn as “a grouping of objects based on a metadata specification describing properties that all objects in the group have in common, or objects that were grouped together specifically by the user as having some shared meaning or logical grouping.” Horn, para. 22. Collections are defined using link metadata, which is metadata defined, updated, and accessed for the purpose of linking together and organizing reference objects logically in collections. Horn, paras. 49 and 26. The logical groups defined by the collections, however, have no dependence on the physical data storage, as provided by the Object Store. Horn explicitly states, “Collections group objects together logically, rather than physically, as folders in file systems do.” Horn, para. 205; *see also* Horn, para. 167 (“Also, items may be removed from a collection by choosing the Remove command, which removes the items from the collection but does not otherwise delete the item from the source (e.g. the file system) or any other collections.”) and para. 124 (“Since it simply modifies the metadata links to indicate collection and container membership, and does not move or copy the original objects at all, objects may be classified into several different collections at once.”). So, while the “Object Store” provides the physical storing and retrieving of data objects, “collections” provide logical groupings of objects. Physically storing and logically grouping are, of course, entirely different actions, and, thus, the terms “collection” and “Object Store” may not be used interchangeably.

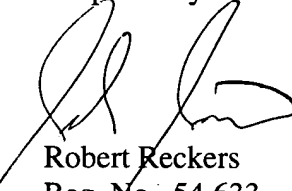
Given the substantial differences between Horn's use of the terms "collection" and "Object Store," Horn's teachings regarding removing an object from a collection do not also contemplate removing the object from physical storage on a data storage device. Indeed, as set forth fully above, when an object is added to or removed from a collection, Horn's system "modifies the metadata links to indicate collection and container membership, and does not move or copy the original object at all." Horn, para. 124 (emphasis added). Therefore, Horn does not teach or suggest "deleting at least one of said plurality of items from said universal data storage device in response to said change [in a relationship]," as required by the various independent claims. Accordingly, Applicants respectfully submit that Horn does not anticipate the claimed invention and that independent claims 1, 9, 13, 18 and 25 are in condition for allowance.

Applicants also submit that dependent claims 2 - 8, which depend from claim 1, are in condition for allowance for at least the same reasons discussed above with respect to claim 1. Furthermore, Applicants submit that dependent claims 10 - 12, which depend from claim 9, are in condition for allowance for at least the same reasons discussed above with respect to claim 9. Applicants submit that dependent claims 14- 17, which depend from claim 13, are in condition for allowance for at least the same reasons discussed above with respect to claim 13. Applicants also submit that dependent claims 19 - 24, which depend from claim 18, are in condition for allowance for at least the same reasons discussed above with respect to claim 18. Applicants submit that dependent claims 26 - 28, which depend from claim 25, are in condition for allowance for at least the same reasons discussed above with respect to claim 25.

**Conclusion**

For the reasons stated above, claims 1 – 28 are in condition for allowance. If any issues remain which would prevent issuance of this application, the Examiner is urged to contact the undersigned prior to issuing a subsequent action. The Commissioner is hereby authorized to charge any additional amount required, or credit any overpayment, to Deposit Account No. 19-2112.

Respectfully submitted,



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